



# THE ATMOSPHERIC RESERVOIR

*Examining the Atmosphere and Atmospheric Resource Management*

## Cloud seeding popular in North America

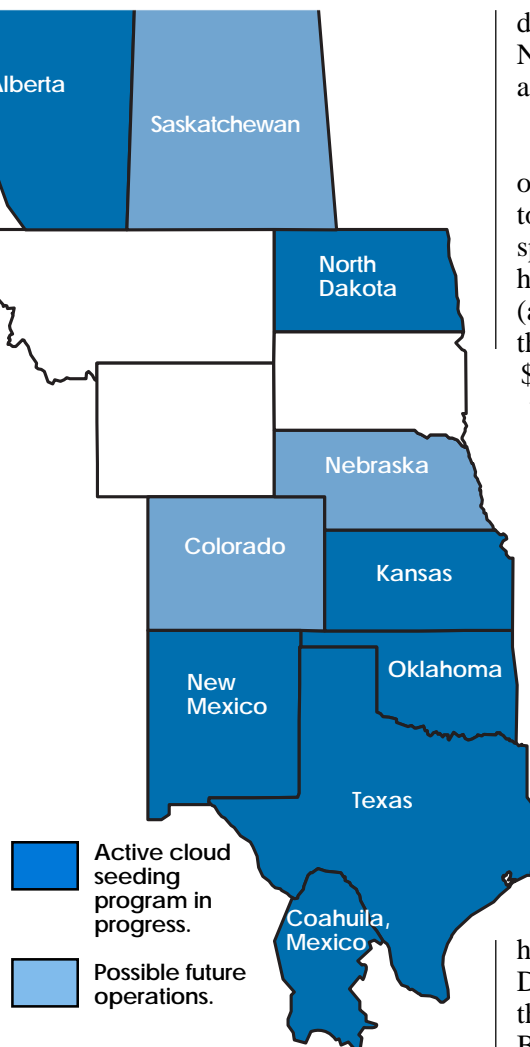
by Bruce Boe

Atmospheric resource management programs are commonplace across the plains of North America this summer.

Programs designed to increase rainfall and/or reduce hail damage are operating from Alberta, Canada, to Coahuila, Mexico. States having operational summertime cloud seeding include Texas, New Mexico, Oklahoma, Kansas, and North Dakota. A program is being organized for western Nebraska, and portions of eastern Colorado may also begin cloud seeding operations in 1999, according to the North American Interstate Weather Modification Council.

There is also some interest in initiating a hail suppression program in portions of Saskatchewan but it is not known if this will result in operations. Of these programs, all but Alberta are seeking to supplement natural rainfall. North Dakota, Kansas, and Oklahoma also conduct operations in a manner designed to suppress hail.

The Alberta program, sponsored by the Alberta Severe Weather Management Society, seeks only to reduce hail damage to insured property, and is the first program of its kind to be sponsored entirely by the property and casualty insurance industry. Project costs are assessed to participating insurance companies according to the market share of each, says project manager, Jim Renick. The 1998 project will be the third year of a 5-year trial project having as primary targets the cities of



Calgary and Red Deer. Edmonton is not in the target area.

North Dakota operations include Bowman, McKenzie, Mountrail, Slope, Ward, and Williams Counties. The Kansas program includes much of the western portion of the state, while the Oklahoma program is state-wide but emphasizing the western two-thirds.

In terms of acreage, operations in Texas are the largest of all, with six

different projects in west Texas and New Mexico totaling over 35 million acres.

In terms of dollars expended on operations this summer, Texas again tops the list with \$3.3 million being spent, half of it state monies. Oklahoma is next, with about \$1 million (all state funds) being expended, and the Alberta project is spending about \$1.4 million (Canadian dollars), a very similar amount. Kansas and North Dakota bring up the rear, spending \$897,000 and \$570,000, respectively, of which \$390,000 and \$125,000 are state funds.

The programs in Nebraska and Colorado have yet to get off the ground, but may do so by 1999.

Many of these programs have sites on the World Wide Web. The Alberta program can be found at <http://www.wmi.cban.com/alberta.html>; the Western Kansas Weather Modification Program at <http://users.pld.com/hailman/master.html>; and the North Dakota Cloud Modification Program through the Atmospheric Resource Board home page, below. A number of the Texas programs may also have sites. These can be obtained by contacting Mr. George Bomar at the Texas Natural Resources and Conservation Commission in Austin. ■

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